

3711

AMENDMENT TRANSMITTAL LETTER			Docket Number (Optional) none
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Application Number 08/942,450	Filing Date 10/01/97	Examiner	Group Art Unit 3304
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Invention Title
GAME CONTROLLER WITH ANALOG PRESSURE SENSOR(S)

TO THE COMMISSIONER OF PATENTS AND TRADEMARKS

Transmitted herewith is an amendment in the above - identified application.

- ☒ Small Entity status of this application has been established under 37 CFR 1.27 by a verified statement previously submitted.
- ☐ A verified statement to establish Small Entity status under 37 CFR 1.27 is enclosed.
- ☒ No additional fee is required.
- ☐ The fee has been calculated as shown below:

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CLAIMS AS AMENDED

	(1)		(2)	(3)		
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT NUMBER EXTRA	RATE	FEE
TOTAL CLAIMS	* 19	minus	** 20	0	x \$	0
INDEPENDENT CLAIMS	* 6	minus	*** 6	0	x \$	0
MULTIPLE DEPENDENT CLAIM ADDED			0		\$	0
					TOTAL	\$ 0
If applicant has small entity status under 37 CFR 1.9 and 1.27, then divide total fee by 2, and enter amount here.					SMALL ENTITY TOTAL	\$ 0

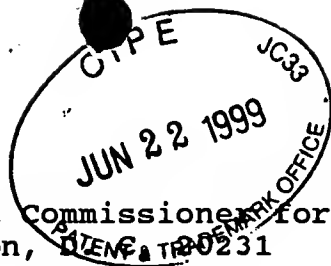
- * If the entry in column 1 is less than the entry in column 2, write "0" in column 3
- ** If the highest number previously paid for IN THIS SPACE is less than 20, enter "20".
- *** If the highest number previously paid for IN THIS SPACE is less than 3, enter "3".

The "highest number previously paid for" (total or independent) is the highest number found in the appropriate box in column 1.

- ☐ Please charge Deposit Account Number _____ in the amount of \$ _____.
A duplicate copy of this sheet is enclosed.
- ☐ A check in the amount of \$ _____ to cover the filing fee is enclosed.
- ☐ The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account Number _____.
A duplicate copy of this sheet is enclosed.
- ☐ Any additional filing fees required under 37 CFR 1.16.
- ☐ Any patent application processing fees under 37 CFR 1.17.

June 22, 1999
Date

Bruce Hwang
Signature



Assistant Commissioner for Patents
Washington, D.C. 20231

#3/Pre a
W. Morgan
7/23/99
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PRE-EXAMINATION PATENT APPLICATION AMENDMENT

Re: Patent Application of Brad A. Armstrong

Serial No.: 08/942,450 Filed: 10/01/97 Grp art unit 3304

Title: GAME CONTROLLER WITH ANALOG PRESSURE SENSOR(S)

Applicant's address: Brad A. Armstrong
P.O. Box 1419
Paradise, CA 95967

Dear Sir:

REMARKS

An Express mail certificate is on page 6.

My above specified non-provisional patent application has not yet been examined and no first office action has been taken on the merits of the application. I would like to amend the claims at this time so that my application when first examined is examined as herein amended. Thank you.

Please amend my above specified application as follows.

AMENDMENTS

To the claims section, please amend claims 1, 3, 5, 7, 9, 10, 14, 15, 16, 18 and 19 as follows wherein [] brackets indicate deletions and underlining indicates words or punctuation to be inserted. Thank you.

Sub. B2
A'
1. (once amended) An improved controller of the type held in two hands simultaneously for controlling electronic imagery, said controller including a housing, a plurality of depressible surfaces at least in-part exposed on said housing with the depressible surfaces acting on electricity manipulating devices contained within said housing and controlled by depression of said depressible surfaces for manipulating electrical outputs at least useful for controlling electronic imagery; wherein the improvement comprises;

a1
 concl. at least one of said electricity manipulating devices is a sensor having pressure-sensitive variable-conductance material [sensor] for creating an analog electrical output proportional to varying physical pressure applied to at least one depressible surface of the plurality of depressible surfaces;

means for outputting to an image generation machine a signal at least representational of said analog electrical output, whereby a user of said controller may be provided proportional control of action intensity of electronic imagery.

a2 Sub. B45 3. (once amended) An improved controller in accordance with claim 2 wherein at least four of said electricity manipulating devices are sensors having pressure-sensitive variable-conductance material [sensors] for creating said analog electrical output proportional to varying physical pressure applied to at least four of said depressible surfaces of said plurality of depressible surfaces.

a3 Sub. B46 5. (once amended) A game controller structured to be held by a user in two hands simultaneously, said controller comprising:
 a housing;
 a plurality of depressible surfaces exposed on said housing and depressible by digits of the user's hands to operate electricity manipulating devices contained within said housing and operated for manipulating electrical outputs of said electricity manipulating devices by depression of said depressible surfaces; at least one of said electricity manipulating devices including

pressure-sensitive variable-conductance material [means] for creating an analog electrical output proportional to varying physical pressure applied by at least one depressible surface of the plurality of depressible surfaces;

means for outputting to an image generation machine a signal at least representational of said analog electrical output, whereby a user of said controller may be provided proportional

a3
concl.

control of action intensity of electronic imagery.

a4

Sub. B8 > 7. (once amended) A game controller in accordance with claim 6 including at least four of said electricity manipulating devices including pressure-sensitive variable-conductance material [means] for creating said analog electrical output proportional to varying physical pressure applied to at least four of said depressible surfaces of said plurality of depressible surfaces.

a5

Sub. B10 > 9. (once amended) A game controller comprising
a housing to be grasped and held simultaneously by two hands of a human user with thumbs of the grasping hands remaining free of grasping responsibilities; said housing including a right-hand area and a left-hand area, said right-hand area being an area for grasping by the user's right hand, said left-hand area being an area for grasping by the user's left hand;

a plurality of depressible surfaces each at least in-part exposed on said housing in at least one said area, said plurality of depressible surfaces positioned on said housing to be within reach of the user's thumb with the user's hand grasping said housing in said at least one said area;

a plurality of electricity manipulating devices each individually operatively associated with a single depressible surface of said plurality of depressible surfaces, one of the electricity manipulating devices per each one of the depressible surfaces; each of the electricity manipulating devices contained at least in-part within said housing and capable of electrical output manipulation upon physically applied depressive pressure of its associated depressible surface of said plurality of depressible surfaces;

at least one said electricity manipulating device including pressure-sensitive variable-conductance material [means] for creating an analog electrical output proportional to varying applied physical pressure;

AS
means for outputting to an image generation machine a signal at least representational of said analog electrical output, whereby a user of said controller may be provided proportional control of action intensity of electronic imagery.

CONCL 10. (once amended) A game controller in accordance with claim 9 including at least four of said electricity manipulating devices including pressure-sensitive variable-conductance material [means] for creating said analog electrical output proportional to varying physical pressure applied by at least four of said depressible surfaces of said plurality of depressible surfaces.

Sub. B12 14. (once amended) An improved method of controlling action intensity of imagery within a visual display [of the type allowing user manipulation of action of imagery within the visual display] by way of depressing a depressible surface [onto a pressure-sensitive variable-conductance sensor connected to electronics within] on a housing of a two-hand held controller linked to an image generation machine which in turn is linked to the display; wherein the improvement includes the step

AB depressing said depressible surface with varying degrees of pressure to vary conductance of [said] pressure-sensitive variable-conductance material [sensor] for varying the action intensity of the imagery proportional to the degree of depressive pressure.

15. (once amended) An improved method in accordance with claim 14 further including

grasping said housing in each of two hands simultaneously when depressing [at least one of] said depressible surface [s].

16. (once amended) An improved method of manufacturing a two-hand held type controller manufactured by way of assembling into a housing a circuit board including circuitry formed to be

at least in-part a component of electricity manipulating devices and applying single digit depressible surfaces in-part exposed on said housing and positioned to be depressed onto said electricity manipulating devices, wherein the improvement comprises;

installing into said controller [at least one] pressure-sensitive variable-conductance material [sensor] for creating an analog electrical output in proportion to pressure applied to at least one of said depressible surfaces;

installing into said controller means for outputting to an image generation machine a signal at least representational of said analog electrical output for providing a user of the controller proportional control of action intensity of electronic imagery.

Sub. B13> 18. (once amended) An improved method of manufacturing a two-hand held type controller in accordance with claim 17 further including installing into said controller said [at least one] pressure-sensitive variable-conductance material [sensor of a type] having a wide variable resistance range as a function of depressive pressure.

19. (once amended) An improved method of manufacturing a two-hand held type controller in accordance with claim 18 further including installing into said controller said [at least one] pressure-sensitive variable-conductance material [sensor of a type] having an active material of tungsten carbide within an elastic binder.

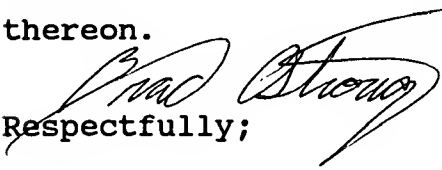
REMARKS

The above amendments to the claims were made so that the claims do not read upon a game controller having at least one depressible button which actuates, through gearing, a rotary potentiometer producing an analog output. Such an embodiment, should it exist, would be inferior for many reasons to the present controller. Applicant has been recently told by a

credible source that such a "game controller with potentiometer" was once made and sold to the public by a company named NEO GEO prior to the effective date of the instant application. Applicant has no first hand knowledge as to whether such a "game controller with push-button controlled potentiometer" ever in fact actually existed.

The claims as amended, and all pending claims are believed patentable over the prior art, and allowance thereof is respectfully solicited.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


Respectfully;

Date: June 22, 1999

Brad A. Armstrong, Inventor / Applicant

CERTIFICATE OF EXPRESS MAILING

Assistant Commissioner for Patents
Washington, D. C. 20231

I hereby certify that this correspondence is being deposited with the United States Postal Service as EXPRESS mail article number EJ385600880US with sufficient postage pre-paid in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D. C. 20231, on this

date: June 22, 1999.


Brad A. Armstrong, Inventor / Applicant